PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM
Water Advisory Committee Meeting Minutes
Lake McConaughy Visitor Center
October 29, 2024

PRRIP Water Advisory Committee Meeting Attendees		
Name	**Affiliation**	**Member or Alternate**
Department of the Interior (DOI)		
Brock Merrill*	U.S. Bureau of Reclamation	Member
Mark Porath*	U.S. Fish and Wildlife Service (USFWS)	Alternate
State of Wyoming		
Jeff Cowley*	Wyoming State Engineer's Office (WY SEO)	Member
George Moser*	Wyoming Water Development Office (WWDO)	Alternate
Michelle Hubbard*	WY SEO	
State of Colorado		
Kara Scheel	Colorado Water Conservation Board (CWCB)	Member 2024 WAC Vice Chair
Emily Zmak*	CWCB	Alternate
Don Baggus*	Colorado Parks and Wildlife (CPW)	
State of Nebraska		
Jennifer Schellpeper*	Nebraska Department of Natural Resources (NeDNR)	Member
Kari Burgert*	NeDNR	Alternate
Mike Archer*	Nebraska Game and Parks Commission (NGPC)	
Jeremy Gehle*	NeDNR	
Jim Ostdiek*	NeDNR	
Upper Platte Water Users		
N/A		
Colorado Water Users		
Jon Altenhofen	Northern Water	Member
Kyle Whitaker*	Northern Water	Member
Joe Frank*	Lower South Platte Water Conservancy District	Alternate
Rich Belt*	South Platte Water Related Activities Program	
Jason Marks	Denver Water	
Downstream Water Users		
Cory Steinke	Central Nebraska Public Power and Irrigation District (CNPPID)	Member 2024 WAC Chair
Brandi Flyr*	Central Platte Natural Resources District (CPNRD)	Member
Jeff Shafer*	Nebraska Public Power District (NPPD)	Member
Mike Drain*	CNPPID	Alternate
Nick Lee*	NPPD	
Nolan Little	Tri-Basin Natural Resources District (TBNRD)	
Tyler Thulin	CNPPID	

PRRIP Water Advisory Committee Meeting Attendees		
Environmental Entities		
Jacob Fritton	The Nature Conservancy (TNC)	Member
Abraham Kanz*	The Crane Trust	Member
Melissa Mosier	Audubon	Member
Rich Walters*	TNC	Alternate
Josh Wiese*	The Crane Trust	Alternate
Executive Director's Office (EDO)		
Justin Brei	Engineering/Colorado Coordinator	
Libby Casavant*	Hydraulic Engineer	
Jason Farnsworth	Executive Director	
Nicole Fijman*	Geospatial Analyst	
Quinn Lewis*	River Scientist	
Chad Smith*	Science Policy Coordinator	
Seth Turner	Water Plan Coordinator	
Ed Weschler*	Water Resources Engineer	
Other Participants		
Michelle Martin	Anderson Consulting Engineers	
Brian Murphy*	River Works	

*Denotes virtual meeting participant.

Welcome and Administrative: *Cory Steinke, CNPPID – 2024 WAC Chair*
In-person meeting attendees introduced themselves; virtual participants were identified from the Teams log. There were no agenda modifications. Marks made a motion to approve the August WAC meeting minutes, second by Altenhofen. No objections, minutes approved.

North Platte Chokepoint Alternatives: *Michelle Martin, Anderson Consulting Engineers*
Martin began the presentation with a reminder to the committee that a team led by Anderson Consulting Engineers (ACE) was selected in 2023 to take another look the North Platte Chokepoint, which has been evaluated extensively by the Program over the past 15-20 years to address conveyance capacity issues. Brian Murphy of River Works assisted with the alternatives analyses to be discussed but was unable to attend in person. Martin reviewed the progression of the project through Phase I (August 2023) and Phase II (February 2024) alternatives screening with the North Platte Chokepoint Planning Workgroup and a comprehensive geomorphic and sediment transport assessment that was presented to the WAC in May 2024. The presentation for this meeting will focus on the Phase III alternatives analyses, which included modeling and conceptual designs for sediment removal and bypass canal alternatives, plus a brief discussion of South Platte storage.

Martin reviewed the problem of reduced conveyance capacity at the North Platte Chokepoint and reiterated the project objective of finding solutions to achieve and maintain 3,000 cfs capacity below the 6.0 ft minor flood stage established by National Weather Service. Martin reviewed other constraints that were defined in the project charter, including a goal of identifying

successful alternatives with capital costs not exceeding $15 million. Scheel asked why the $15 million limit was chosen. Turner said it was arbitrary but reasonable based on past project evaluations, and Farnworth noted that the bypass canal was in the $15 million range when looked at several years ago. Another criterion was that alternatives not adversely impact or disrupt irrigation and/or hydropower operations. Steinke asked if that included NPPD's system, Martin said it was not a factor in the alternatives evaluated.

Martin then turned to recapping findings of the geomorphic assessment, with emphasis on the sediment wedge accumulated upstream behind the Tri-County Diversion Dam (TCCD). The key conclusion is that the presence of Lake McConaughy upstream and the TCCD downstream are the primary drivers of aggradation and long-term loss of hydraulic capacity through the North Platte Chokepoint. ACE initially looked at this issue around 2012, but focused upstream at the Hwy 83 bridge (and adjacent gage) where flow and capacity are assessed for the Program. Dr. Peter Nelson of CSU (and the project team) completed 1D morphodynamic modeling indicating that backwater effects can extend as much as 30 ft above dam height and 8 miles upstream, consistent with the extent of deposition that forms the chokepoint sediment wedge. This provided further evidence in support of the conclusion that the TCCD has slowed or blocked sediment transport through the reach. Overall, given that the capacity declined rapidly in the 90s but has remained relatively stable over the last ~20 years, the chokepoint reach can be said to be in dynamic equilibrium.

Altenhofen asked about the influence of the South Platte and the sediment load from South Platte vs North Platte. Martin said the models account for water and sediment coming from both; the proportions vary from year-to-year but it's generally about a 60/40 split with South Platte contributions of sediment (and water) being higher. Steinke asked about the meaning of equilibrium in this context, does that mean the sediment wedge is just stuck? Martin said the upstream sediment supply is not expected to change and with the extent of aggradation stable, new sediment is likely to move through without causing significant changes to the system. Steinke said that CNPPID just purchased a new dredge that will be able to remove larger amounts of sediment annually. Is that likely to have any impact on the wedge, or just make the dredged "hole" behind the TCCD bigger? Martin said that probably won't make a noticeable difference upstream at Hwy 83 but it won't hurt either. Altenhofen asked how much sediment CNPPID removes annually, Martin said about 150,000 cubic yards.

Turning to the alternatives screening and evaluation, Martin described compiling an initial list of 62 alternatives from previous studies (Phase I) and then whittling that down to a short list for further evaluation (Phase II). The short list included a No Action Alternative, South Platte reservoir storage, evaluation of upstream sediment sources, purchase of existing irrigation infrastructure, construction of a new bypass canal, channel modification/sediment removal, and modification of the TCCD.

South Platte Reservoir Storage

South Platte reservoir storage was not evaluated with rigorous modeling but the concept discussion as presented to the North Platte Chokepoint Planning Workgroup in February 2024 was expanded to provide additional context tied to prior evaluations. ACE developed storage volume estimates to supplement or replace up to 1,500 cfs of constrained chokepoint capacity for a May-June germination suppression EA release. To provide 30 days of flow at 1,500 cfs would require more than 135,000 AF of storage after accounting for transit losses. Costs for storage (existing Sutherland Reservoir with seepage cutoff, Sutherland East) and outlet (to Fremont Slough) alternatives in the NPPD system were updated from 1993 and 2012 estimates and found to be on the order of $82 million for only a fraction of the storage needed (7,500 AF Sutherland East with an outlet to the South Platte River). Larger storage volumes would cost tens to hundreds of millions more. Cost, permitting, and timeline are all factors that make South Platte reservoir storage infeasible for the Program to pursue alone or with stakeholder sponsorship. Turner emphasized that reservoir projects are hugely expensive to build and maintain, as shown by the Program's previous unsuccessful attempt to do so (i.e., J-2 Regulating Reservoirs).

Hydraulic and Sediment Transport Modeling and the No Action Alternative

Martin proceeded with an overview of the hydraulic and sediment transport modeling for the Phase III alternatives analyses, including calibration, and emphasized that the sediment transport modeling results were intended to identify trends but do not provide deterministic results. The No Action Alternative (NAA) assumes continued vegetation control and CNPPID dredging at the TCCD and functions as a baseline for comparison of other alternatives. The modeling utilized 25-year hydrologic time series based on the 2009-2023 period.

Kanz asked about the modeling procedure, why in the hydrologic time series were high flows replaced with other years? Was that to keep 10-year returns? Martin explain that there were three different versions of the hydrograph: (1) the first time series removed the 2011 flood to keep the hydrology similar to the rest of the past 20 years; (2) the second time series added 3,000 cfs high flows to replicate EA releases; and (3) the third time series included the 2011 floods. This accounts for flow variability ranging up to the 10-year event, but all bets are off for a 50-year or 100-year event. Farnsworth added that the last big flood was around 1984 or 1993. Kanz asked if there were any concerns about a 25-year or larger event. Martin said that would be something to consider if the Program were to pursue implementation of one of the alternatives. Archer asked what flow rate would overtop the TCCD. Martin said with 15 gates on the south side of the diversion dam that can each pass around 5,000 cfs, the TCCD can pass 75,000 cfs without overtopping, even more if you add the gates on the north side.

Presentation of results focused on the Hwy 83 bridge and the Red Fox Lane/Darlene Road area upstream on the south bank that was problematic during the July 2020 chokepoint flow test. Martin pointed out that peak flows tend to scour the channel bed (e.g. 2011 flood, which was a 10-year event, or 2016) but the sediment wedge recovers. Regarding channel bed elevation

results shown in the figures, Turner emphasized the point that the trends shown do not explicitly mean there would be a period of degradation followed by a period of aggradation; because most of the results fall within the banded range, the model is capturing behavior within a normal range of variability. Martin concurred with that explanation. Mosier asked if a longer study period, 30 or 40 years, would actually be less informative. Martin said yes, because the 1D model does not capture much in the way of lateral changes.

Sediment Removal Alternatives

Moving on, Martin said the main alternative that came out of the geomorphic study was sediment removal. Options such as spur dikes and channel widening were considered but the big takeaway was that the formation of the sediment wedge takes a lot of those off the table since they won't be effective over time. The most effective approach is to remove the sediment, but if you take the sediment out, it will inevitably fill back in. The modeling attempts to address the question of "how long can these solutions be sustained?"

Sediment Removal Alternative A proposed excavating a 150-ft wide channel through the sediment wedge to a uniform bed slope of 0.125% from the TCCD to upstream of the Hwy 83 bridge. This would require excavating 1,170,000 cubic yards of sediment from the river channel. This approach would be very effective at achieving and even exceeding the desired 3,000 cfs conveyance capacity with an estimated 6,000 cfs capacity after completion of sediment removal. This raises questions of whether the volume of excavated sediment is "overdoing it" but alternatives to be discussed later show what happens when there is less sediment removal in terms of physical distance and/or volume. Modeling estimates that capacity for Alternative A would be sustained for 20-30 years at the Hwy 83 bridge, but the sediment wedge would re-establish in the downstream reach between the Hwy 30 bridge and the TCCD within the first 5 years.

There was discussion of inundation mapping and the area around Red Fox Lane/Darlene Road. Marks asked if this sediment removal is just one and done then sustainable for two decades? Martin said yes. Marks asked how long it would take to remove a million yards of sediment. Brei said the intent that it would be done within a year at the start of the model period. Martin added that a floating dredge couldn't be used in the shallow channel and that heavy equipment would be required in the channel. Altenhofen asked where the removed sediment would go; Martin said we'll get to that.

For Sediment Removal Alternative B, the downstream extent would be below the Hwy 30 bridge, but the remaining sediment wedge down to the TCCD would remain. This alternative would also excavate a 150-ft wide channel but at a lower 0.115% slope, reducing the excavation volume to about 330,000 cubic yards (30% of Alternative A). This would initially achieve a capacity of 3,000 cfs at the Hwy 83 bridge but would likely only be sustainable for 5-15 years. The downstream tie-in to the remaining sediment wedge would be problematic. Annual monitoring would be required and possibly additional sediment removal.

Sediment Removal Alternative C further shortens the extent of excavation from upstream of Hwy 83 to upstream of the UPRR bridge with the same 150-ft wide channel and 0.115% slope. The excavation volume would be 233,000 cubic yards. This, too, would achieve an initial capacity of 3,000 cfs at the Hwy 83 bridge but would be sustainable for only 3-10 years, require annual monitoring and likely additional sediment removal.

The last sediment removal alternative was a modified version of the "recommended construction alternative" developed by ACE in 2016 and includes channel widening upstream of Hwy 83. Sediment removal would be reduced to about 203,000 cubic yards. An initial capacity of 3,000 cfs would be achieved as desired but only sustained for 3-15 years because the upstream channel widening would lead to reduced flow velocities, more sediment deposition, and rising water levels in the Red Fox Lane/Darlene Road area. As with other alternatives annual monitoring would be required and potentially additional sediment removal. Mosier asked what would happen if, instead of doing upstream sediment removal, you removed the downstream part of the sediment wedge? Martin said you end up fighting the backwater and effects of sediment coming in from the South Platte.

Martin summarized the results for the four sediment removal alternatives, noting that Alternative A has a higher level of confidence that capacity can be sustained for an extended duration (20-30 years). The other alternatives have a higher degree of uncertainty in long-term sustainability and a higher risk of losing capacity over time. Regarding a figure for the ACE 2016 alternative showing stage at 3,000 cfs tracking below 6 ft for the full 25 years, Farnsworth recalled the grey bands illustrating range of variability for channel bed on figures for the NAA. He asked what happens if we apply that here, what is the likelihood that we get what we want. Martin said there is a lot of uncertainty within about a foot and not a high level of confidence.

Steinke asked when capacity through the chokepoint reached dropped below 3,000 cfs and Turner said sometime in the 1990s. Steinke noted that it took ~50 years to get to a point of diminished capacity (TCCD was built around 1940). There was discussion of whether being able to dredge more at the TCCD or expanding the dredge pool upstream would increase the duration that sediment removal is sustainable. Martin said that as long as there are backwater conditions behind the TCCD, the sediment wedge is always going to re-establish.

Kanz asked if there is a stacked approach of implementing both sediment removal and a bypass canal. Martin said the analyses only considered single approaches; if you can get 300 cfs through an irrigation canal and 500 cfs from sediment removal, cobbling together flow capacity from all over quickly gets too complicated. Farnsworth said from a construction standpoint it's best to just pick one solution and do the best you can with it.

Sediment Removal Conceptual Design

Martin presented a conceptual design for Sediment Removal Alternative A. Capital costs were estimated at $37 million (probably at the low end). Permitting would be a significant issue likely

requiring an Individual Section 404 Permit and an EA or EIS. There would be up to 200 acres of impacted wetlands, and sediment removal would likely not emerge as the Least Environmentally Damaging Practicable Alternative (LEDPA) when there are other options such as a bypass canal. Drain asked if the Supreme Court's recent Sackett ruling that wetlands must be physically connected to the body of water at the surface would have any impact. Martin said it would be difficult to show the wetlands as not connected given proximity to the active river channel.

Martin also addressed the issue that landowner approval for construction easements would be required for 49 land parcels. This led to some discussion of land ownership and how Nebraska defines property boundaries in river channels. Turner added that a few years ago the Program was unable to secure permissions to do some vegetation disking on about 5 land parcels at the chokepoint, so getting permission from nearly 10 times the number of landowners would be a heavy lift.

Staging and disposal of sediment would be a significant issue; costs were estimated based on a haul radius of 25 miles but specific locations for disposal were not identified. CNPPID has ongoing issues with disposal of sediment dredged at the TCCD. Mosier asked Steinke what CNPPID has looked at for sediment disposal. Steinke said the sand is too angular for fracking or concrete and that some farmers will use it in their pivot tracks. Altenhofen asked if this is expected to be a long-term issue. Steinke said he expects to be hauling sediment daily soon. Altenhofen asked how much the new dredge will remove, Steinke said 20-25% more.

Modification of the TCCD

Martin discussed the concept and typical applications of canal diversion dam modification, which was proposed in the VESPR report. The idea for the TCCD would be to induce a headcut through the sediment wedge to increase capacity and extend the sustainability of sediment removal. Replacement of the dam gates would likely cost $21 million or more. However, the TCCD already has the ability to pass large amounts of water and sediment (as shown in example of 18,000 cfs flow during the September 2013 South Platte flood with only a few gates open). Analyses showed no added benefit to sediment removal alternatives and that it would take 600 days of 3,000 cfs flows for a headcut to migrate from the TCCD upstream to the Hwy 83 bridge. Modifying TCCD would hinder CNPPID's year-round operations by altering the headwater required for canal diversions and interfering with dredging. It would also remove a barrier that prevents invasive aquatic species from migrating upstream.

Turner said the TCCD has plenty of capacity to pass water and sediment (~75,000 cfs or more as discussed earlier) but we just don't have the quantities of water required for this type of sediment flushing. The 3,000 cfs for 600 days works out to about 3.5 million AF, roughly the equivalent of completely filling and refilling Lake McConaughy twice. Farnsworth added that there is a problem with the perception that there would not be a flood in North Platte, so everything is built right down to the river channel. That chokes sediment transport capacity and CNPPID can't make a scour release unless absolutely necessary. Martin said the 2011 flood peaked around

6,000 cfs and resulted in bad flooding. There was discussion of how much water the morning glory emergency spillway at Lake McConaughy can pass and how bad a 100-year flood would be at North Platte.

Bypass Canal Conceptual Design

Martin presented an overview of the conceptual design for a bypass canal that would divert from the North Platte River and return water to the South Platte River. The bypass canal as proposed would generally parallel the existing North Platte Canal. It would be a trapezoidal earthen canal 6.3 miles in length with a capacity of 1,500 cfs, 60-ft bottom width, 96-ft top width, 6-ft depth, and 3:1 side slopes. There would be a 24-ft wide access road running alongside the canal. Required excavation would be about 570,000 cubic yards, but much of that could be used on site to construct the access road. At least 18 crossing structures would have to be built, including 3 siphons under the existing North Platte Canal, 5 large road crossings (including Hwy 30 and UPRR), and 10 local access road crossings.

With 1,500 cfs of dedicated bypass capacity and 1,500 cfs at the chokepoint, the 3,000 cfs conveyance capacity objective could be achieved. However, as an earthen canal there would be issues with seepage losses, perhaps around 25%. Capital costs were estimated at $31 million, with annual O&M costs of $400,000. The bypass canal would impact 23 privately-owned land parcels, requiring acquisition or easements.

Altenhofen asked about using the Sutherland Canal for bypass conveyance to the South Platte River with a discharge point near Paxton. Steinke and Drain addressed how that would impact NPPD's and CNPPID's operations; dedicating the full capacity to EA water would lead to operational issues for NPPD, particularly for delivery of water to Sutherland Reservoir for cooling at the Gerald Gentleman Station. There was discussion of how Sutherland Canal is already used preferentially to convey EA releases (i.e., through NPPD's Sutherland system vs down the North Platte River and through the chokepoint) but there is not consistent surplus capacity in the canal. Turner noted that per prior conversations with NPPD, it would not be physically possible to expand the capacity of the Sutherland Canal, and it's about 20 miles from the diversion to Paxton vs 6.3 miles of bypass canal.

Summary and Discussion

Martin showed an overall summary slide recapping the alternatives that were presented. Little wanted to confirm that the sediment wedge is not growing at the Hwy 83 bridge. Martin said flood stage has leveled out and shouldn't change much barring major changes in flow or sediment supply. Little asked if the City of North Platte had rejected the idea of a levee; recollections seemed to be that yes that was true. Steinke added that most of the city can handle 6.5-ft flows in the river, it's the houses on the riverbank that cannot. Mosier asked if a big flood could bring in more sediment, Martin said that's always a potential issue with river restoration projects.

Steinke said the South Platte carries so much sediment that it still deposits downstream of the TCCD even when passing flood flows. Farnsworth said we've learned that the TCCD is well designed to handle much more water and sediment than we can deal with, so installing Obermeyer gates that could lay flat wouldn't make much of a difference. The issue is there is not enough water for a long enough duration to accomplish anything (i.e., meaningful sediment removal) without flooding North Platte. There was some additional discussion of the 2013 flood flows and what would happen with very high flows on the North Platte River. Steinke said that the flows that scoured sediment in 1983-84 would now cause millions of dollars in flooding in the city. Lake McConaughy is not a flood management reservoir and CNPPID does what they can to control high flows down the North Platte River but there would be limitations in extreme circumstances.

Regarding modifications of the TCCD, Kanz asked if the modeling used the same hydrographs, and if so, does it make sense to use the same flushing capacity but with the hydrograph that ignores the 2011 floods. Martin said the modeling of the modified diversion was limited to the hydrograph with 3,000 cfs EA releases; higher flows were not considered simply because you cannot intentionally flood people out in North Platte. Kanz suggested this approach was deceptive if we can't look at how high flows can go without topping the TCCD. Brei said you need catastrophic flow scenarios to overtop TCCD, and CNPPID is generally able to mitigate high flows with existing reservoirs and operations. Martin reiterated that putting higher flows through the chokepoint would violate the "no impact" portion of the project charter.

Farnsworth asked what's next for the study. Turner said the draft alternatives report was distributed to the WAC and the North Platte Chokepoint Planning Workgroup a week prior to the WAC meeting and that there would be a request for any comments to be submitted two weeks after the meeting. The ACE team is also preparing a modeling tech memo and wrapping up the geomorphology report. Everything will be finalized for distribution to the GC prior to the December 10-11 meeting, as the consultant contract expires at the end of the year. Any next steps are dependent on what the GC says.

Steinke said the WAC can send this to the GC with no recommended solution because there is no way locals would accept the bypass canal. Farnsworth noted that all of the alternatives are challenging from a policy perspective. Altenhofen asked why are we still doing this? Drain said to remember the effort wasn't driven by the WAC, it was assigned to it. There was a decision made for the Extension that we need to find ways to address the chokepoint, regardless of anyone thinking that the effort wouldn't bear fruit. The Program is attempting to look at this in good faith. Altenhofen agreed and said we've come to the conclusion that the Program can't afford these solutions. Farnsworth said it's not even about money, it just can't be done. The Service asked for one last good run at this to deal with as much uncertainty as possible.

Brei said that if there was a feasible alternative that worked for $60 million, we could be having serious talks to make that happen but there simply isn't a feasible solution. Drain added that if you can't condemn, you can't build. Out of 49 (or 23) landowners, someone is going to say no.

Steinke said that if North Platte bought into a sediment removal alternative it could potentially be successful for 20-30 years; Farnsworth said that's only if you could permit it, and there's no way USACE would allow that. Steinke said we've killed this and should go to the GC with no recommendations. Turner added that the EDO wasn't expecting a recommendation from the WAC to proceed with any specific alternative. As Martin previously highlighted, we started this study with a list of more than 60 potential solutions that were considered over the past 20 years but nothing works. If this was doable, the Program would have done something by now.

Brief Water Updates: *Ed Weschler and Seth Turner, EDO*

Platte Basin Hydrology:

Weschler showed a chart of year-to-date flow at the Grand Island gage, with flows below the USFWS targets most of the time since the August WAC meeting. Hydrologic condition designations were dry for both August-September and October-November.

Drought conditions worsened over much of the Platte River basin between late July and late October, with the entire basin ranging from abnormally dry to extreme drought except for a small pocket in northeastern Colorado. Areas experiencing extreme drought include parts of southeastern Wyoming and parts of Boulder and Larimer counties in Colorado. Severe drought encompasses much of the rest of the Colorado Front Range and southeastern Wyoming into the Nebraska Panhandle. The North Platte River and Platte River corridors in Nebraska are mostly within areas of moderate drought.

There was no snowpack to report in Colorado or Wyoming.

Leasing, Recharge, and Recapture Projects*:*

Turner reported that there have been no excess flows since early July and thus, no excess flow diversions for recharge. Year-to-date recharge diversions are about 715 AF into Phelps County Canal and 800 AF delivered to Cottonwood Ranch, with none into Elwood Reservoir.

Despite persistent deficits to target flows over the past few months, the recapture wells have not been pumping out of caution that the combination of extensive pumping from February to July and limited recharge over the last 5 years could lead to river depletions. This is the opposite of the intended effect of recapture pumping, and the concern arose from recent water projects accounting updates and analyses that were done for the Expanded Recapture Reconnaissance Study. Cumulative recapture pumping for 2024 remains at 2,440 AF.

Lease credits to the Lake McConaughy EA in October included 14,358 AF from CPNRD; 3,306 AF from NPPD; 790 AF from the CNPPID irrigator lease; and 314 AF from No-Cost NCCW. Water from the Pathfinder Reservoir accounts was delivered to the Lake McConaughy EA in September and early October, with 32,068 AF released from the Pathfinder EA and 9,600 AF released from the Pathfinder Municipal Account. After transit losses, a combined 36,859 AF was credited to the Lake McConaughy EA, per Nebraska DNR.

Turner discussed several ongoing maintenance and repair activities at the Cottonwood Ranch recharge project, most stemming from a major thunderstorm that hit the project site on July 6. This includes installation drains to remove water from the electrical conduits and replacement of electrical parts in the north vault valve actuator. Digital pressure gages were also installed so the Program can get simultaneous flow and pressure readings to help address the persistent outlet valve cavitation issue.

The EDO is also working with CNPPID on an agreement for CNPPID to handle all operations and some maintenance of the Cottonwood Ranch recharge project. This is intended to be structured similar to the augmentation agreement with TBNRD, in that CNPPID will operate the project and the Program will reimburse costs. It is expected that this agreement will be ready for GC review and approval in December.

In September, George Oamek (Honey Creek Resources) presented the findings of his economics and alternatives analysis for the CNPPID irrigator lease to the GC. The GC deferred formal action to December but it is anticipated that the leasing agreement will be amended again to extend the project one year through 2025 with the Program increasing the price paid to $160/acre. Additionally, based on suggestions from participating irrigators, the enrollment period will be delayed to March 2025 instead of fall 2024. The EDO is working with CNPPID on the amendment to the leasing agreement.

WY2025 EA Annual Operating Plan (AOP): *Mark Porath, USFWS*

Porath was not available to present, so Turner noted that the most recent draft of the WY2025 EA AOP was made available in the meeting documents, with minor revisions having been made following discussions during EAC/RCC and TAC meetings in the preceding weeks. USFWS has identified the May-June EA release from the Lake McConaghy EA as high priority and a spring whooping crane release as medium priority. Any questions about the WY2025 EA AOP should be directed to USFWS.

2025 Water Plan Budget: *Seth Turner, EDO*

Turner reviewed the water-related budget line items for 2025. Excess flow diversions into Phelps County Canal for recharge were pre-paid at least through 2032 under the Water Service Agreement (WSA) between the Program and CNPPID that was approved in December 2022, so no new funds are needed. The WSA for recharge in the CPNRD canals expires December 31, 2024 and will not be renewed due to lack of diversions during the term of the agreement. Similarly, the WSA for recharge in the NPPD canals expires December 31, 2025 but no funds are to be allocated due to limited diversions since 2020. Total WPRT-1 budget for 2025 is $0.

Elwood Reservoir recharge is pre-paid at least through 2032 under the same WSA as Phelps recharge; no new funds are needed for 2025. Following presentation of results from the Expanded Recapture Reconnaissance Study in September, the GC recommended moving forward with feasibility assessment for the Elwood Reservoir outlet alternatives. The EDO is working with the consultant team led by LRE Water to develop a scope and budget for what will

now be the Elwood Outlet Feasibility Study. The preliminary budget estimate is $500,000. In support of the feasibility study, the Program will also pay $25,000 in 2025 for LiDAR and multispectral imagery of Plum Creek that was flown in fall 2024. Total WPRT-2 budget is estimated at $525,000.

WPRT-3 includes funds for operation and maintenance of the Cottonwood Ranch recharge project. This includes allocations for the Rubicon gates, as-needed maintenance of the berms, other specific maintenance tasks expected to be completed in 2025 (i.e., replacement of north vault valve actuator parts), communications upgrades to integrate the Rubicon gates with CNPPID's SCADA system, and CNPPID staff time and expenses related to operations and maintenance of the project (assuming the new agreement discussed earlier is approved in December). No funds are allocated for water deliveries because there remains a credit balance of about $870,000 from construction of the delivery pipeline. Total WPRT-3 budget is $253,000 for 2025.

Funds allocated under WPRT-4 are to reimburse TBNRD for costs associated with operation and maintenance of the Program's eight recapture wells. This includes electricity; well, pipeline, and discharge channel maintenance; easements; SCADA software subscriptions; and TBNRD staff time, mileage, and expenses. WPRT-4 budget for 2025 is $100,000. This is lower than previous years because of better understanding of project electricity costs. Turner noted that the maintenance component was increased somewhat due to repeat occurrences of beaver dam issues.

Line item WPST-1 includes funds for leased water that is credited to the Lake McConaughy EA. Discussions of long-term agreements for these leases remain in progress and uncertain. For budget purposes, the EDO is currently assuming another round of one-year agreements with CPNRD (up to 15,000 AF), NPPD (up to 3,306 AF), and a potential storage water lease with CNPPID (up to 10,000 AF), all at $90/AF. Total budget is for WPST-1 is estimated at $2,548,000 but this is subject to change pending potential long-term agreements.

WPST-2 is the Pathfinder Municipal Account lease for up to 9,600 AF at $65/AF. Total budget is $624,000. WPIR-1 is the CNPPID irrigator leased, assumed to be up to 3,000 acres at $160/acre plus a $10,000 administrative fee paid to CNPPID. Total WPIR-1 budget for 2025 is $490,000. WPLW-1 includes $10,000 for maintenance, weed control, and mowing at Program properties that were acquired for future water projects.

WPWM-1 has a budget of $55,000 for 2025. This includes funds for the stream gages at Cottonwood Ranch, Overton, and the J2 Return/South Channel (newly installed in 2024); camera maintenance at the Grand Island gage; Nebraska Mesonet weather stations at Morse (Cottonwood Ranch) and Binfield South; telemetry subscriptions; and replacement data loggers and other miscellaneous surface and groundwater monitoring equipment.

Turner said it is anticipated that the GC will not take any immediate action following the review of alternatives from the North Platte Chokepoint Study (to conclude in December 2024), so WPCP-1 includes only $10,000 for as-needed maintenance of the State Channel Berm in 2025. Lastly, the EDO is anticipating initiation of major groundwater and surface water modeling efforts in 2025, which will require the assistance of Special Advisors in these subject areas. WPSA-1 is budgeted at $100,000 for 2025.

Adding up all of these line items results in a 2025 water plan budget of $4,715,000.

Additional Business: *Cory Steinke – 2024 WAC Chair*

WAC meetings in 2025 are scheduled for February 4 (subsequently changed to February 11 due to conflict with a TAC meeting), May 6, August 5, and October 28.

Action Items

General WAC

- N/A

ED Office

- N/A